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The Students of Worcester Polytechnic Institute

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WPI CONCERTS SUSPENDED



TWO OF UNITY POLICE USED FOR SECURITY AT LAST CONCERT

The Sha Na Na concert, originally scheduled to be held in Harrington Auditorium on Nov. 20, has been cancelled, Tech's Social Chairman, Don Baron, has announced.

Because of problems encountered at The Band concert it was decided that it would be better if WPI suspended its concert schedule for awhile. Members of the Social Committee held a meeting with Dean Reutlinger and John Sdoucos of Music Productions, before the final decision was made.

Sha Na Na will appear at Worcester State College on Friday.

Baron tightened security for The Band concert, hiring the Unity Policy force who patrolled the Summerthing concerts in Boston this summer, and succeeded partially in keeping gate-crashers from getting in for free. One rock was thrown through a window in the Auditorium, however, and damage done to a police cruiser before several hundred youths were admitted to the auditorium with about a half hour left in the show.

Other area colleges have also suspended their concert programs. Holy Cross has not held any rock concerts since damage was done to the Cross field house at a concert featuring Chicago. Damage has also resulted from concerts at Clark, Assumption and Worcester State.



ONE OF SEVERAL STUDENTS ALSO USED FOR SECURITY



The Tech News

Vol. 61

Worcester, Massachusetts

Tuesday Nov. 17, 1970

No. 24



CAN ANY REGISTRATION SYSTEM ELIMINATE THOSE DAMN LINES?

SECOND SEMESTER REGISTRATION ON DEC. 3RD

Registration for second semester will be held December 3rd. The new date will replace the usual registration day at the beginning of the second semester.

Last spring, the Planning Office attempted a new registration system in which the students

signed up for the courses they wanted and times and teachers were then assigned. Many students were unhappy with the arrangements, since in many cases the time of the course or the teachers of the course was as important to the student as the course.

This week several copies of a schedule of courses with times and professors, for each course will be circulated around the campus. Students are urged to see their advisors before December 3rd to work out a tentative schedule.

All classes on Dec. 3rd, a Thursday, will be cancelled and registration will be held in Higgins Labs. The schedule is by classes as usual:

SENIORS and GRADUATE STUDENTS	8-10 a.m.
JUNIORS	10-12 a.m.
SOPHOMORES	1-3 p.m.
FRESHMEN	3-5 p.m.

Each student will be given seven computer cards (one for each course he wishes to take) and a green sheet listing the courses and all sections stapled to another computer card bearing the student's name. As usual, the

departments will have representatives in rooms in Higgins. The students will go to each department he wants to take a course from and hand them the computer card. The representative will check to make sure the course and section the student is open and will circle the appropriate section on the student's green sheet. After the student has seen all of the departments he wishes to take courses from he then returns to the registration desk with the cards.

Courses which have less room available than the student demand, such as the ever-popular Art 400 course, will be filled on a first come, first serve basis with priority to the seniors.

February 1st will be enrollment day. Students who have flunked a course and have to re-register or new students will have to go to the department offices to register.

Multiple section courses have been held at the same times in the past. This year, however, the sections will be spread across the entire day. Tuesdays and Thursdays will also be filled up to a greater extent with hour-and-a-half classes.

LARGE TURNOUT FOR FROSH PARENT'S DAY

The Society of Families sponsored the annual Parent's Day last Saturday at W.P.I. primarily for freshmen parents. The day gives them the opportunity to get their son's or daughter's view of college after two months and to talk with faculty and advisors, especially since mid-terms had just been released.

HAZZARD, VAN A ADDRESS PARENTS

During the opening session President Hazzard emphasized that this institution has an informal environment for learning, created by the faculty. He asked the parents to continue to care about what happens here, and to come often to see for themselves how things really are. Professor van Alstyne briefly gave some of the background of the W.P.I. Plan, especially in the area of why it was developed in its particular style. The 18-year-old is for the most part treated like an adult in our society, he said, yet when it comes to his future, he must follow a set course in his department, as a child is led through school. This plan has potential, yet there must develop a close relationship between the faculty and the students. Dean Reutlinger was impressed by the large number of parents there. In his talk he mentioned that it is the parents who don't come who really are the ones that they would also like to see, for it is the absent parents who transfer their responsibilities to the school, which is wrong. In the four years that a student is here, he or she is not radically changed in basic patterns of life. These must have been instilled by the parents before the student arrived here. The obligation of the school is to provide the necessary services for the student, such as counseling and health service.

Following this, the parents could meet with the advisors, along with faculty and administration. Then there were two discussion groups. One concerned itself with non-academic problems on modern college campus, the other with financing college expenses.

SEMINAR ON NON-ACADEMIC PROBLEMS

Dean Reutlinger opened the informal talk on non-academic problems. According to him, the polarization in the world began in November of 1963. It was at this time that the death of President John F. Kennedy occurred, a man who advocated that if something is wrong, change it; the other death that day was that of Aldous Huxley (author of "Brave New World"), who advocated dropping out of the world, and turning inward. Here at W.P.I., the Dean felt that the students were extremely responsible when it came to expressing their views on the political action locally, nationally, and internationally. This guaranteed responsive action from the administration. Dean Brown talked about the trouble with "townies" at the concerts here at W.P.I., and what was being done to ease this tension. Dr. Commons discussed the types of drugs that are misused in society, from sleeping pills to L.S.D. When asked about the number of students using marijuana and drugs, the doctor said that it was impossible to know.

The discussion of financing college expenses was headed by Mr. Ed Hesselbarth, Director of Financial Aid. It consisted of a question and answer period for the parents.

WPI PLAN DISCUSSED

After lunch, the W.P.I. plan was further discussed. Dean Grogan, Dr. C. William Shipman and Dr. Charles Heventhal discussed humanities in a technology major. A point brought out during the question and answer period following was that in order for this system to work, there must develop a close relationship between the student and his advisor; otherwise, the entire system will fail.

WPI IN SOCCER TOURNAMENT



SEE PAGE 8



by Paul Cleary

In recent weeks Tech News readers have been offered several explanations by Richard Logan as to why WPI needs a YAF Chapter or at least a viable conservative movement of some sort. Plans for a YAF chapter here have been formulated by two seniors: Frank Calcagno and Ron Zarella, but as of this moment no moves have been made to implement these plans. The conservative movement at WPI has continued to be present but not very noticeable.

The reason why WPI conservatives have had trouble getting started is partially due to a lack of purpose. What exactly does the YAF chapter at WPI, assuming it gets started, intend to do? Nobody seems quite sure, including those most involved with it. Another problem with starting any political action club at this time is that of disinterest. If conservative students on our campus really had anything worthwhile to say, where were they in 1968 when national elections and ROTC were big issues? Where were they last October or November when the Moratorium was in full swing on college campuses? Where were they last Spring when President Nixon's decision to send troops into Cambodia caused a spontaneous student strike that echoed across the country?

No one really knows where our conservative brothers were. Now it is 1970, Senate and House elections have come and gone without so much as a peep from WPI's conservatives, political involvement among college students is relatively low, and not the faint battlecry can be almost heard from the vicinity of Institute and Dean Streets: YAF may be here soon. Whoopee. It's a little late isn't it?

Another problem which conservatives have encountered on this campus is lack of appeal. Appeal to some sort of image, and appeal to common sense.

The only manifestations of any sort of even semi-organized conservative movement came during last May's strike. None of it made much sense. For example, the WPI conservative who complained to me about the language of one strike proponent during the rally in front of Riley Hall. He said he was upset because Tech's 24 coeds were exposed to a certain four letter expletive. The next day he was on his way to hand an anti-strike sign from Alumni Gym. The sign read simply, "Don't Strike." Under this terse message was a well-known digital gesture made with the hand. Alumni Gym, of course, is directly across the parking lot from the dorm where the Coeds lived last year.

The other such manifestation was the distribution of the "Communist Rules of Revolution," a document printed up by two of WPI's better known conservatives, which claimed that the leaders of the strike and the Moratoria were "known Communists and Trotskyites." A talk with one of the producers of this leaflet proved that he did not even know who the leaders of these events were. He had never heard of Sam Brown, David Hawk, or Sam Mixner, who were the organizers of the Student Moratorium; he did not think George McGovern was a commie, he didn't think that I was a commie. Who were the commies? "I don't know," he said, "the leaders."

No wonder there are organizational problems with a YAF chapter here. The other factor contributing to the lack of a strong conservative movement on our campus is Crossfire.

In the year or so that Richard Logan has been writing his column, he has failed to stir people to accept what he says or even to read what he writes. The reason is obvious. No one really wants to wade through a lot of

cont. pg. 4 col. 4

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I pass these along, confident that no one, but no one will be motivated to either remove qualifying passages and then object to the message rendered, or cry out in the mistaken belief that somehow, in some way, I am criticizing a past editorial.

The first two selections are by Mr. M. S. Soivenski.

Worcester Insurance and Lumber Company

Dusk.

"What? Streetcar? Where?"

"... down 2-1/4. . ."

"Where's the Commerce Building?"

"Mr. Phillips? Third floor, first door to the right."

Quiet.

Not quite.

A cricket symphony.

A slight wind whispering through the trees.

The ringing of a telephone:

"Good afternoon. Worcester Insurance and Lumber Company...."

Cement fields.

Concrete and brick forests.

Steel lumber.

Insurance?

New Math?

one plus one

equals

zero,

for very small values

of one.

Lovely is my Ann, Perfumed and Smiling

What, then, shall you say

To photon sea tides

Flowing soft and quizzical against your open eyes?

Are you prepared, then,

To assume the day?

You must decide.

Darkest dawn, a Saturday.

Sardonic twilight to the room confides

A blank contempt, expressed through its association

With the sordid icons of ethereal infatuation:

Morning after morning he attempts to bear the inquisition,

Though it is too early now to look,

To see the bust of Schubert staring from the shaving mirror,

Mouthing out specific whisper-wish endearments

To those other things which emulate the mirror's faultless disposition.

And it is too early yet for singular submission to that sentiment

Which would direct him to some tea and breakfast rolls

With butter... or, perhaps, with marmalade...

No. It is too early yet to have to brave such acts of consciousness.

And still, the light endeavors to endure and best

The makeshift battlements, the curtains worn and frayed;

Endures to chisel out relief, as dusty air flows past the window shade.

You must decide.

Twisting morning dust between his fingers,

Fashioning in idle play the greater aspect of the day,

Behind which he might try to hide

From what her gesture had asserted,

Hiding from the lamplight memory of eyes averted, no escape.

No escape.

There is the scent that lingers,

Makes one still and hesitant...

Her eyes had seen, and wondered;

Seen, and understood; and now the air lies sundered,

In a heap of broken images upon the floor,

With fragrant sharpened edges there between the bed and door.

You must decide.

....

And so I lie at last,

Within this cold, yet sleepy past,

To ponder... flickering...

As quiet fragrance carries me

In time-drift sleep experience,

To know in dream the ravishing,

O ghosted princess of this reaching love,

Yearning...

Editorial HYPOCRISY IN BOYNTON

In order to maintain the constructive dialogue essential to any academic community, openness and frankness must exist on all sides. We wonder if the administration here is really dedicated to being open and frank with the students.

The changing of dorm counselors to resident advisors was hailed by the administration as a major change in the philosophy of dormitory living. John Nicholson commented to the Tech News early this fall, "... we definitely want to get rid of the policeman image. The R.A. should work closely with his floor, but he should also be someone to talk to." Dean Reutlinger also said that the resident advisors could only serve their most useful function if they are counsellors and advisors rather than surveillance agents of the Office of Student Affairs. The events of the last few weeks concerning marijuana smoking in the dorms indicate that the main difference in resident advisors is their name.

As shown last week, the Resident Advisors still enforce the rules of the Office of Student Affairs. Last week's article on marijuana smoking in the dorms said, "Paul Popinchalk... felt that if he allowed continual violations of the rules to go unreported, he would not be doing his job." He is by no means the only RA who feels that he is still being paid to enforce the rules and maintain order in the dorms.

It has been a cliché on this campus for three years that drug abuse can only be combatted with education and not with punishment. The idea of resident advisors seemed well-adapted to this purpose. An older, supposedly responsible and informed student would be available in the dorms for advice on drugs. One must now ask how many people will go to the very people who feel obligated to enforce the administration's unrealistic policy on drugs for advice on drugs.

The reason why the Office of Student Affairs is concerned is that they fear a police raid on the dorms. The persons who would be most hurt by such a raid would be the dormitory residents. The dormitory government elected by the dormitory residents, should determine the rules governing their own lives, including the rules concerning marijuana. They should be well-informed of the possible consequences of their actions by the Office of Student Affairs, but the responsibility should be theirs. The ending of "in loco parentis" also implied the ending of protection. The resident advisors should do what their title says: advise, not enforce.

The administration should realize that students hate dishonesty and hypocrisy. Too many campuses have already seen violence due partly to people in authority who said one thing and did another.

G.W.

D.H.

A.D.

THE ZIG-ZAG PAPERS WELCOMES YOUR CONTRIBUTIONS.

This year's theme is fantasy: dreams, trips, mind excursions, etc. Contributions should be left in the Tech News Office

WHAT TO DO UNTIL THE BOMB GOES OFF

On the night of the Band concert there were two bomb scares. The calls were received by the Worcester police who immediately sent men to Harrington Auditorium.

Harrington was searched thoroughly by the Worcester police aided by the W.P.I. Security force and the Unity Patrol. No bomb was found and the audience was not notified.

In an interview with the Tech News, Dean Reutlinger and Chief Whitney of Campus Security answered questions concerning the incident. They also gave details of how such threats are dealt with. "Harrington was not evacuated because the time given by the caller for the bomb to explode had passed by the time action could be taken" said the Dean. The building was, however, searched and nothing was found.

In dealing with such threats, the Dean said that there are several possibilities. The first is that there is no notice given and a bomb explodes. In such cases nothing can be done.

Secondly there may be a call informing the authorities that a bomb has been planted. In this case there may or may not be a bomb. The building in question must be searched. If there is a bomb and a detonation time has been given it may go off early, on time or late.

"Timing is very important" said the Dean. This factor is crucial in determining how a bomb threat is going to be dealt with.

The Dean continued by saying "In most cases it's merely harassment, but you can't make any assumptions." The emphasized they have to remain cool and act on the basis of what they know about a particular incident. "Even if there is low probability of a bomb, the stakes are always high."

Chief Whitney said that since he has been at W.P.I. there have been no bomb threats other than those of last Saturday. He agreed with Dean Reutlinger concerning policy of how to deal with bomb threats. "You can't really say anything ahead of time about what you're going to do."

Whitney did say that in any case there will be co-operation with the City Police. Three Worcester cruisers were called in to assist in dealing with the threat at the concert.

In closing, Dean Reutlinger commented on the anonymity of bomb callers. "Anyone who is acting anonymously in the open atmosphere of the academic community is violating the spirit of that openness. The anonymity is the biggest crime."

WPI - Anna Maria College Joint Glee Club

CONCERTS

Saturday, December 5
WPI

Sunday, December 6
Anna Maria College

Times to be announced

LETTER BAND BOOSTER

Mr. Zimmer:

I would like to express my opinion, and that of the people who liked The Band concert. You thought the concert was nothing because of the lack of communication with the audience and the apparent use of canned songs. I am assuming you mean verbal communication, such as John Sebastian was involved with. This was an excellent concert, and the use of audience communication made things really smooth. Sebastian's music was easily understood by the average listener. I can only agree to your observation that The Band didn't say much that evening directly to the audience. Being conditioned by the previous Sebastian concert, this "cold shoulder" to the audience was unusual first. It took me about 30 minutes to realize that their entire show was aimed at musical communication, and not verbal. The Band is a group that just doesn't make it by talking with the audience. For instance, the two short licks on tenor and soprano sax by Garth Hudson helps to understand The Band. I saw in that The Band's personality - many people around that thought it was some sort of joke, but I could see it as an indication of their musical tightness. Those sax licks added a micro-bit of flavor, but that was all they needed to communicate to me. I think they find it quite difficult to have a verbal communication with their audiences.

There is a definite difference between listening to music at a concert and on a stereo, even if the songs at the concerts are replicas of the recorded versions. There exists a certain vastness found in a gigantic room, and with closeness of people you can't get listening to your stereo. The lighting, the equipment, the atmosphere, and especially feeling the music (about 4000 RMS watts audio) - that just doesn't happen in someone's room. The lines, the big rush for seats, and the expectations cannot be found on a black piece of vinyl. Certainly the program was canned, since the band had been playing in Long Island the previous two nights, and when could they work out non-canned versions? If The Band were appearing here again, I would ask you not to consider yourself buying some music, but sharing in an experience that these five musicians are trying to convey.



THE BAND IN CONCERT AT HARRINGTON

ENVIRONMENTAL SYSTEMS STUDY PROGRAM AT WPI

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For Information drop in at:

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Mr. Joseph Mielinski, Administrator
Salisbury 04 Ext. 366



GARTH HUDSON PERFORMS ON THE SAXOPHONE
AT THE BAND CONCERT

WHAT'S UP

Tuesday, Nov. 17 - "Andorra" play at Holy Cross, Fenwick Theater, 8:30 p.m. Preview performances through Nov. 18. Senator John Tower (R. Texas), Holy Cross Campus Center 8 p.m. Cam Design Seminar, WPI, through Nov. 19.

Wednesday, Nov. 18 - Poet, Maxine Kunin - Dana Commons, Clark Univ. 8:15 p.m.

Thursday, Nov. 19 - "Andorra" (see above). Regular performances through Nov. 22. Poetry reading by Maxine Kunin, Holy Cross C. C. Rm 320, 8 p.m. Poet, John Beecher, Little Commons, Clark Univ., 8 p.m. Play - "The Unknown Soldier", Worcester State College, through Nov. 21. Call WSC for details. "La Dolce Vita" - Alden Auditorium, 7:30 p.m.

Friday, Nov. 20 - Film - "Long Days Journey Into Night," Atwood Hall, Clark Univ., 8 p.m., Poetry reading: Prof. John Reilly, poems by Walt Whitman. Gordon Library Seminar Room, 8 p.m.

Saturday, Nov. 21 - First balloon flight in Paris, 1783.

Sunday, Nov. 22 - President J. F. Kennedy assassinated, 1963.

Monday, Nov. 23 - Trio da Camara, Little Commons, Clark Univ., 8:15 p.m.

Tuesday, Nov. 24 - Arts Society Movie, 7 p.m.

Wednesday, Nov. 25 - Vacation Begins, 12:35 p.m.

Thursday, Nov. 26 - Thanksgiving.

Friday, Nov. 27 - "Man of La Mancha," Atwood Hall, Clark Univ. 8:15 p.m. through Nov. 29.

Monday, Nov. 30 - Classes Resume.

Wednesday, December 2 - Clark University Choral Society Fall concert

Thursday, December 3 - Thomas Eakins, His Photographic Works, Worcester Art Museum, through Jan. 24.

Friday, Dec. 4 - "Four Student Experimental Theater", Worcester State College.

Saturday, Dec. 5 - WPI - Anna Maria College joint Glee Club Concert, Alden Auditorium, WPI.

Sunday, Dec. 6 - Lucille Harvey, gospel singer; Wore. Art Museum 3 p.m. Wheaton Trio - Clark University, Atwood Hall, 8:15 p.m.

The College Health Service has obtained vaccine and will give flu shots on scheduled days as listed below.
Cost: \$1.00.

All those who wish to have flu vaccine shots should report to the Health Office in Stoddard C, Hackfeld Road entrance between the hours of 1:30 - 5:00 p.m. and 8:00 - 10:00 p.m.

November 17 & 18 — Seniors

November 19 & 20 — Faculty, Staff and other employees

The Showplace Cinemas of WORCESTER
Showcase
Cinemas 1&2
799-2737
—DOWNTOWN TWINS—

SHOWCASE 2

Starts TUESDAY

ROBERT
REDFORD
MICHAEL J.
POLLARD

"SHEER
ENTERTAINMENT"
Boston Herald

"FAST, ROUGH,
EXCITING"
N.Y. Post

LITTLE FAUSS AND
BIG HALSY

Regular
Prices

at 1:30
3:30
5:30
7:30
9:30

FOR
CHRISTMAS
Walt Disney's
"ARISTOCATS"



"REDFORD IS
SENSATIONAL!
POLLARD IN
HIS KOOKIE
WAY IS
WONDERFUL"

COMING SOON
The New Musical
"SCROOGE"

A New Approach to Control Engineering at WPI

A new approach to teaching Control Engineering at WPI is planned for second term 1970-71. All juniors and seniors who register for ME493 Control Engineering I or EE347 Control System Engineering will be combined into a single class. INDIVIDUALLY PRESCRIBED INSTRUCTION (IPI) will be used to achieve the required learning level in Control Engineering. The initial course orientation, diagnostic examination, assignment of course units and many of the competency measures (assessments) will take place during the scheduled periods. Additional time will be set aside primarily on Tuesday and Thursday during which students may confer with the instructors, and/or work in the LEARNING LABORATORIES if they so desire. The LEARNING LABORATORIES will contain the analog computers, television viewing stations, laboratory equipment and work areas for students. Eventually teletype consoles for direct access to the digital computer will be located in or adjacent to the LEARNING LABORATORIES.

The specific objectives for the Control Engineering course including a course hierarchy (block diagram) will be given to each student allowing him to map his path from the level at which he enters the course to the completion of the course objectives. The course material will be divided into units or blocks; each unit will contain an objective, a reading assignment, collateral references, study questions, study problems, programmed learning materials and the acceptable response required from the student for the given unit.

A brief summary in outline form of some of the salient points of the IPI method follows:

1. The instruction is tailored to the individual student.
2. A diagnostic measure of the student's competence in the general area of control engineering will be given for this assessment.
3. A student will be exempted from each unit of Control Engineering in which he can demonstrate acceptable performance on the diagnostic measure. The results of the diagnostic measure will determine the beginning level and number of units of instruction for the student.
4. One or two units of instruction will be given the student which he may complete at his own rate. He may work in the LEARNING LABORATORIES or at any place of his own choosing.
5. When a student feels he has mastered a unit or block of material he may request a competency measure (assessment) for that unit.
6. When a student satisfactorily completes a unit he will be assigned the next higher unit to work on. If the student does not satisfactorily complete the unit he will be given specified activities related to the unit to do before he can repeat the competency measure. There is no penalty of "F" grade



Prof. Scott pictured in one of the television viewing stations

for unacceptable performance on an assessment.

7. The student may retake a course unit as many times as necessary until he demonstrates his competency. Our only interest is that he learns and is able to demonstrate his competency in Control Engineering.

8. A student will receive an "A" grade when he has demonstrated his competency for total course objectives. Lesser passing grades will be given students who complete above the minimum specified objectives. The course can be completed before the end of a semester.

INDIVIDUALLY PRESCRIBED INSTRUCTION has many advantages over traditional methods of teaching Control Engineering. Each student clearly understands the objectives of the course. Each student can work at his own pace; no student should be overwhelmed nor should any student be bored. The responsibility for learning is where it should be, squarely on the shoulders of each individual student. Learning habits will be developed that should be helpful to the student throughout his entire learning and enhance course enjoyment. Certainly it is worth a try.

Kenneth E. Scott, Prof. of ME
Robert A. Peura, Asst. Prof. of EE
Steven A. Hunter, Graduate Asst. ME

After the Race

Late last August the Propane Gasser and the hybrid-electric Gremlin were victors in the 1970 Clean Air Car Race. After the first few weeks of school the clean air cars dropped out of the news. However the end of the race was not the end of the clean air cars.

Right after the race the Clean Air Saab went on tour under the direction of Saab of America. Having provided the car to Tech for the race, this company is now displaying the car at various show rooms throughout the country. The Saab has been gradually working its way towards Worcester and should be here shortly.

After it returns the Saab is expected to undergo some improvements. The M. E. Department hopes to refine the thermalreactor system and the catalytic converters (these reduce the exhaust emissions). Professor Zwiep feels that the Saab as it is right now, could probably meet the emission requirements set by Congress for 1975 cars.

Besides being seen on our campus, the other four cars have been exhibited at various auto shows: New England. Recently the cars have been displayed at the NEARER Auto Show in Boston and at the Narragansett Raceway outside Providence. In January the Propane Gasser is scheduled to be shown at the Society of Automotive Engineers Auto Show in Detroit.

As to what's being done on each car: the victorious Propane Gasser is a fairly highly developed anti-pollution vehicle and is considered second generation hardware (i.e. the various systems for combustion of propane are in their second era of development or refinement). The car is being used for day-to-day driving to test the reliability of its propane gas engine.

The hybrid electric car is scheduled for more development. The alternator and the electric control systems need more work. Also road performance characteristics must be studied.

The National Air Pollution Control Administration (NAPCA) has given grants to Tech for further development of the Propane Gasser and the hybrid electric car. In the spring these two cars will be going to Michigan where NAPCA will study their respective



The "Big Boiler"

systems.

The Great Teakettle is considered first generation hardware and it needs some improvements. The general efficiency of the steam engine has to be improved. By modifying the valve system the driving team hopes to get the Teakettle up to make speeds with reasonable reliability. NAPCA is also given a grant to Tech to continue development of this car and it will probably be going to Michigan around June.

The fifth car, The Dark Horse, was loaned to Tech by the Hertz Company and the car is scheduled to go back to the company. If it returns to Tech again, the exhaust system could be developed further and the engine could be modified a little.

The people responsible for these cars, the driving teams and their advisors, have been speaking about the race to many groups in and around Worcester. Interest in the talks has run high and the audiences have been generally enthusiastic. The various people behind the cars have spent so much time speaking that they have had little time to continue work on the cars.

Professor Zwiep explained that more work will eventually be done on the cars and that there are plenty of openings for students who weren't part of last years teams.

Occupation Of Boynton Imminent

On Monday and Tuesday of next week (Nov. 23 & 24) the Student Body of W.P.I. will hold President Hazzard for ransom in Boynton Hall. No one will be allowed into Boynton on these dates without a contribution to his ransom which must be in the form of canned food or money. All contributions will be given to the Salvation Army for distribution to needy families in Worcester. After a sufficient amount has been collected the President will be set free. If, however, at the end of two days the ransom is still insufficient, W.P.I. may be less one President.

Ransom collectors are needed from 8:30 a.m. to 5:00 p.m. for both dates. Volunteers please contact George Bickford at Phi Sigma Kappa, 752-9483 or John Petrillo at Lambda Chi 756-4970.



RANSOM

Thayer School of Engineering, Dartmouth College, will be holding on-campus interviews on 20 November for prospective graduate students at the master's and doctoral levels in most engineering areas. Sign up in the Placement Office.

Student Government Meeting

Last Wednesday evening, Daniels Lounge was the scene of the longest student government meeting of the year, stretching out to two hours. It was also the best attended meeting by far, with some 25 or thirty people present, including eleven of the thirteen Executive Council members.

The Canned Food Drive, proposed last week by George Bickford, won the council's overwhelming approval. The drive will follow the same pattern as the I.F.C.'s "takeover of Boynton Hall" two years ago. Students will liberate Boynton Hall on Monday and Tuesday before Thanksgiving vacation, and hold President Hazzard hostage, to be redeemed only by donations of canned goods. All proceeds from the president's ransom will benefit needy families in Worcester.

The Tech Community Council statement on academic freedom, as passed by the T.C.C. and the Faculty, was read by Maryann Bagdis. The Executive Council passed this resolution unanimously. The resolution is printed in its entirety in last week's Tech News.

Alan Dion and Lionell Powell are planning to hold a forum to provide an interchange of ideas concerning the racial tension which has been cropping up on campus. This meeting will probably be held in Stoddard Residence Center.

Don Usher, the newly elected Chief Justice of the Student Court, brought up the fact that there were only two seniors, Ned Cunningham and himself, and two faculty members, Professors Bluemel and Bourgeault, on the court, whereas the constitution provides for another senior and two juniors to serve as judges. Therefore, after many nominations, Paul Popinchalk was elected as a senior member, with Don Peterson as alternate, and Jeff Petry and John Zorabedian were the two choices from the junior class.

Jack Zorabedian, '71, was appointed by president Dave Hobill to chair a committee which will hopefully get a start on drawing up a new constitution for the student body. The executive council discussed this to some extent, and they hope to form a constitution which ties the student body more closely to the other segments of the school, such as the faculty, the administration, and the trustees.

The council hopes to get a good deal of student participation in developing this new constitution.

UP IN SMOKE COND. FROM P. 2 COL. 2

poly-syllabic polemics to arrive at the meat of a column that could have been put in one sentence. If Logan has to pore over his dictionary for hours just to give the impression of intellectuality, is it worth the reader's time poring over his dictionary to find out what Logan is trying to say? The purpose of a column such as Logan's should be to communicate his ideas to as many readers as possible. To do that you have to have something interesting to say and an interesting way to say it. Logan often comes to bat with two strikes on him.

The major problem facing WPI conservatives, therefore, is to find a knowledgeable and dynamic spokesman for their cause. But conservatives here have waited too long. They avoided a confrontation with campus "Liberals" when the time was ripe.

A YAF chapter now would be meaningless. It would be five years too late.

SENIORS AND Graduate Students

Want to finally learn some fluid mechanics and thermodynamics in an interesting format? Elect GAS DYNAMICS NEXT TERM!

Undergrads, ME 474 3 Credits
Gads, ME 572 3 Credits

Instructor, Jack Boyd, Higgins 115, Ext. 461

Text: "Gas Dynamics" by J. E. A. Johns, Allyn Bacon
(Good Book)

SHOCK WAVES — MHD — SUPERSONIC FLOWS
These fun topics are included in course coverage.

MATH CLUB

TONIGHT, TUES., NOV. 17 the Math Club will sponsor the second in its series of monthly lectures at 7:30 p.m. in Stratton 105. This month's lecture is "Where Engineering Ends and Applied Mathematics Begins" and will be presented by Mr. Davis. Considering the derivation of the conservation of mass equation of fluid mechanics, he will compare an engineer's intuitive approach to a problem with an applied mathematician's rigorous attack. No prior knowledge is required. Free refreshments will be provided.

Draft Information Column

MASTERING THE DRAFT

Copyright 1970 by John Striker and Andrew Shapiro

P.I.O.

Names can be deceiving. Take the "Public Information Office" at Selective Service, for instance. The P.I.O. is really a "public relations" office. It just happens to dispense packaged information as its stock in trade.

True public information has never been closely associated with the Selective Service System. During General Hershey's junta, the draft remained, in his words, "one of the best kept secrets in America." Just this week, the present Public Information Chief, Ken Coffee, told this reporter: "While General Hershey reigned, getting information from the P.I.O. was like trying to squeeze blood from a turnip."

But the times they are a-changing. At the insistence of Dr. Curtis W. Tarr, director of Selective Service, the P.I.O. is now instrumental in furthering an "open door" policy. As part of this unabashed PR campaign, the P.I.O. on October 29, sent over 1100 draft counseling organizations a special letter signed by Dr. Tarr. "Friends," the letter begins, and it goes on to offer certain "straightforward and factual" materials on the draft.

These materials are prepared by Selective Service and can be ordered free of charge from the Public Information Office, National Headquarters, Selective Service System, 1724 F Street N.W., Washington, D.C. 20435. The materials include five so-called "booklets" entitled "Perspectives on the Draft" (a general discussion), "If You're Asked" (an abbreviated version of "Perspectives"), "The Lottery," "C.O.," and "Hardship Deferments."

ERRORS IN BOOKLETS

Although the "booklets" will not be published for another month, your reporter has obtained page proofs for each "booklet." These proofs contain several legal errors. Hopefully they will be corrected before final printing. The number of inaccuracies may have been kept down, because the "booklets" are so short. The "booklet" on "Hardship Deferments," for instance, is shorter than this column—which raises the question, when is a column a "booklet" and vice versa?

While the "booklets" are "factual," as the P.I.O. asserts, the facts are mostly nonfactual. You simply cannot use them. Take one typical example out of many. "The Lottery" explains: "If a man receives a very low number, his chances of being drafted are great. If he receives a very high number, his chances of being drafted are much less."

"Facts" such as these—and they abound—are appalling understatements. They might not be so distressing if only the "booklets" were longer. A short "booklet" cannot stand much padding without becoming, in effect, even shorter.

Finally the "booklets" overgeneralize. Consider the following discussion of a Presidential appeal in "Perspectives on the Draft": "You will receive another Notice of Classification card after the state appeal board has considered your case. The vote of the board is recorded on the card. If the vote is not unanimous, you have a right of appeal to the President. From the date of the appeal board notice you have 30 days to inform your local board that you wish to appeal to the President." To begin with, all of this information—all of it—is conveyed on the back of your Notice of Classification. In fact, your card is even more detailed, because it also tells you that a Presidential appeal must be requested in writing.

If "Perspectives on the Draft"

were really detailed and useful, it would explain how to obtain a Presidential appeal, even when the vote of the state appeal board is unanimous; how to get the state appeal board to reconsider its own decision, before a Presidential appeal is taken; and how and when to submit a written argument to the Presidential Appeal Board.

NON-INFORMATION

This reporter believes that the P.I.O. engages in sheer public relations whenever it dispenses condensed over-simplified generalities. Such information is really non-information. It cannot be used. Why, then, is it spewed forth? Because the very act of communicating so-called "public information" creates greater receptivity for the role of Selective Service in American society. That is public relations not public information.

Any draft counselor who finds something new in the five "booklets" had better turn in his peace symbol. He is not qualified to counsel.

Any registrant who accepts at

face value the statements made in the "booklets" is in trouble. He will have swallowed a dangerous string of half-truths and misleading generalizations.

The draft law is not pabulum. It cannot be reduced to a baby's formula. In terms of sheer complexity and interrelated problems, draft law yields nothing to tax law or securities law.

MASTER THE DRAFT

That is why this reporter co-authored a 626 page book on the draft and called it Mastering the Draft. The only way to cope with the draft is to "master" it. There are no halfway measures worth risking. You must really get into the draft and plan out your options over the long term. Mastering the Draft lets you know more about the draft than your draft board knows. Such an edge is crucial, because Selective Service often treats the law as though it were child's play; and you pay the price for the draft board's ignorance and your own.

We welcome your questions and comments about the draft law.

Marine Corps Selection

Major Donald E. Hubbard, Captain Michael H. Collier, and GYSGT George W. Curtis of the Marine Officer Selection Office for the New England area are scheduled to visit Worcester Polytechnic Institute on 18 November 1970 to discuss the officer programs of the U.S. Marine Corps; the platoon leaders class and the officer candidate course.

The platoon leaders class is available to the college undergraduate in ground and aviation fields. Members of the PLC Program are commissioned as Marine Second Lieutenants upon graduation. Law and graduate school deferments are available to qualified PLC's.

The officer candidate course is designed for college seniors and graduates with a Baccalaureate or higher degree. Guarantees in Data Processing, Supply, Motor Transport, Engineering and Aviation are available, before enlistment, to qualified applicants. Upon successful completion of the officer candidate course, candidates are commissioned as Marine Second Lieutenants.

Please address them to "Mastering the Draft," Suite 1202, 60 East 42nd Street, New York, N.Y. 10017.

For further information, contact the Marine Officer Selection Office, 200 Summer Street, Boston Massachusetts 02210 (TEL. 223-2913 & 223-2914.)

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Boynton 304

DUE DEC. 14

General Electric's been building bigger jet engines for 30 years.

When are they going to start building cleaner jet engines?

Not many people know that General Electric started building a jet engine in 1941. America's first jet engine.

That jet produced only 1200 pounds of thrust.

Our newest jet, for the DC-10, produces around 50,000 pounds of thrust.

In the early days of jet aviation, the important thing was thrust.

But suddenly our skies are filled with jets. And, suddenly, jet pollution is a major problem.

General Electric tackled it head on when building the DC-10 engines. And we accomplished two things.

When you see the DC-10 take to the air, you'll see no black marks against the sky. Because the engines make virtually no smoke.

Of course, there's more to jet exhaust than just smoke. Our goal is

someday to make jets run totally clean.

Another problem with jets is noise. If you've ever lived anywhere near an airport, we don't have to tell you that.

General Electric has been working on noise, too.

GE was chosen by the federal government to help solve this problem for the aviation industry. At present, we know of no way a powerful turbofan engine can be made noiseless. But we've made progress in that direction.

The DC-10 engines, for instance, are quieter than any jet engines on the passenger planes of the Sixties. Quieter, even though they're more than three times as powerful.

We have more work to do before we'll satisfy all the people concerned about jet pollution, ourselves included. But because we've been working at it since the mid-Fifties, before it was widely recognized as much of a problem,

we've already crossed some important hurdles.

Why are we running this ad?

We're running this ad, and others like it, to tell you the things General Electric is doing to solve the problems of man and his environment today.

The problems concern us because they concern you. We're a business and you are potential customers and employees.

But there's another, more important reason. These problems will affect the future of this country and this planet. We have a stake in that future. As businessmen. And, simply, as people.

We invite your comments. Please write to General Electric, 570 Lexington Ave., New York, N.Y. 10022.

GENERAL  ELECTRIC



(Trinity Tripod, Trinity College, Hartford Conn)

Recently Vice-President Spiro Agnew spoke at a fund raising dinner in Hartford. Mapping his words and the varied reactions to them were throngs of reporters, however, a special press pass was needed to attend the dinner.

The Tripod's special press pass to the banquet was hard to come by, and even harder to hold on to. The special security passes were initially cleared for area colleges, but later revoked by James O'Hara, public relations director of the Republican State Central Committee, due to insufficient credentials.

The Tripod was able to provide the additional required credentials for the admittance of one reporter, but was still denied the security pass. No explanation was given. Only hours before Agnew spoke, a security pass was reissued to the reporter, with an apology from the Central Committee and no further comment.

O'Hara was clearly surprised to see the Tripod reporter in the Hilton Hotel lobby Friday evening and quietly told him to "behave yourself."

A half hour before Agnew addressed the crowd Hilton Ballroom, O'Hara removed the security pass from the reporter's suit jacket, saying he was "sorry" but he was "under orders" from "people in the White House" to take the pass.

(The Polytechnic, Rensselaer Polytechnic Institute, Troy, N.Y.)

South Vietnam's former ambassador to the United States, Dr. Tran Van Dinh, spoke at Rensselaer recently about the aspects for peace in this country.

According to Dinh, "ninety-nine percent of the American people want the war to end," but they are deeply divided on how to end it. There are two basic issues underlying this controversy, both of which Americans have cautiously avoided discussing. The first issue is determining who will rule South Vietnam after our troops have been withdrawn. Instead of dealing directly with this problem, however, debate has centered around the "blood bath problem."

Blood bath

Dinh offers the simple solution that "if Congress really has passion for the Vietnamese, it will pass a resolution allowing these people (possible victims of a blood bath) into the United States."

The second real issue is the presence of foreign troops in South Vietnam. Dinh believes that our presence in his country is a major source of support for the Communists. He cites a recent C. I. A. report stating that the Viet Cong have infiltrated every level of South Vietnam's government. The Vietnamese realize that they must live with their own people in the future, especially those in positions of authority, and can not be expected to trust a foreign army.

Communist takeover

The American people have cautiously evaded this point also, remarks Dinh. Instead they substitute the fear that if our troops pull out the Communists will take over. The former ambassador points out that his country will probably lean towards the left after the war is over and that this is an unavoidable reality. "This is a people's war, America should withdraw as soon as possible."

Dinh, who resigned from the foreign service in 1964, quoted several statistics related to American withdrawal. He said that sixty-five percent of his people want the United States to withdraw, five per cent want them to stay and thirty per cent have no opinion. He also told the audience that Vietnamization is an impossibility because only the United States can sustain large expenditures and afford such losses and waste of materials and lives. "This has created huge problems for South Vietnam. The South Vietnamese forces can only fail and the United States will come back."

(The Downtowner, St. John's University, N. Y.)

RESTRICTIONS ON DOWNTOWNER LIFTED

The University announced yesterday that it would not take any action against The Downtowner if the paper prints political material.

The promise, an apparent reversal of administrative statements made last week, that it would not invoke any sanctions against the paper came while the New York Civil Liberties Union (NYCLU) attempted to contact the administration and request, in behalf of The Downtowner, that SJU lift its restrictions on the paper for one week.

A spokesman for St. John's said yesterday that "Pending action by the Internal Revenue Service (IRS) or any other agency the administration will not impose any penalty on The Downtowner."

The University said yesterday that if something The Downtowner prints is deemed illegal by the IRS the University would "point to the guidelines it issued last week and say that if the IRS feels the paper violated those guidelines it would be a matter solely between IRS and The Downtowner."

He added, "If The Downtowner gets the University into trouble the University can't be expected to fight its (The Downtowner's) battles."

The administration's promise not to take action against the paper for printing political material was coupled with a request, however, that the paper "voluntarily" refrain from printing such material.

BASKETBALL SCRIMMAGE

Tuesday Night 17th

6:30 P.M.

Varsity vs. Western New England College

Saturday 2 P.M.

Varsity vs. Babson

Harrington Gymnasium

Free

ELECTION DAY LIKE XMAS

Clad in conservative gray suit but wearing a colorful tie adorned with peace symbols, soft-spoken, calm, imperturbable, but charged with a subtle, stinging humor, Charles Quinn, an NBC news correspondent, provided quite a few students an often caustic, sometimes reflective, and even nostalgic analysis of the recent national elections and prominent political figures.

Quinn began his speech by reminiscing about the falls of years past and the Irish saloons where the "air of politicking" filled his childhood neighborhood. To him election day is like Christmas as he eagerly awaits the returns, it is the culmination of 16 to 17 months of diligent, persistent effort. He has covered the presidential campaigns of Nelson Rockefeller, Hubert Humphrey, Miller (remember him?—he ran for V.P. in '64), Barry Goldwater, George Wallace, Eugene McCarthy, and many others. He was with Martin Luther King, and with Robert Kennedy that night in L.A. He was at Kent State. Quinn remembers the charisma of John F. Kennedy and how Washington, D.C. was light and carefree during his administration, but he added that Washington isn't very happy anymore. Nixon is out to give the impression that he's a laugh-a-minute guy, but, when Quinn asked NBC White House correspondent Herb Kaplow for some good jokes about the White House, Kaplow replied that he didn't have any.

Agnew Not Funny Now

Quinn remarked that Agnew, once the butt of jokes, isn't funny since he has become formidable politically. Quinn liked the old Agnew better because you never really knew what he was going to say next. He also commented on L.B.J. and his library which contains all the records of his administration ("the world's largest all-fiction library") and his

TV Program "Me the People". All of this was a prelude to his talk on politics and politicians in general and how politicians apparently fool themselves—Nixon in calling this election a stunning success and the Democrats in calling it a "decisive rejection". Nixon now feels that he has an "ideological working majority" on his side in the Senate, while the Democrats feel that they have won strong "power bases" in the statehouses. Out of all this confusion, the election in 1972 will probably be decided on a very fundamental issue—the economy. The Democrats will have a good shot at victory if Nixon's economic strategy fails and if we are still in Vietnam. The memory of Roosevelt and the Depression and the association of the Democrats with good times economically and the Republicans with bad still linger on in many people's minds—especially when many people are out of work. As for the 1970 elections in History, "it won't be remembered except by the ghosts of Nixon and Agnew."

Questions and Answers

A period of questions and answers followed. Among the questions and Quinn's comments were these:

Will Lindsay change parties? Quinn was uncertain because Lindsay was a tough man to "read" but thought he probably would leave the Republican Party and go to the Democrats who need a strong leader in New York.

What will George Wallace do in '72? Quinn thought that Wallace would probably change his tactics and concentrate more in the South and border states, especially Florida and Tennessee. If the economy turns bad, the race could be close between Nixon and the Democratic nominee and Wallace could force the election into the House.

What do you think of the seizure of news films by law enforcement agencies? Quinn is opposed to the seizure of "off the record" news film. If the film is used on the air, then he thought that it was all right to use it in court. If it is not used on the air, then it should not be used in court. He also felt that, if the film was seized, it would set a bad precedent for freedom of the press.

Robert Fitzgerald Kennedy

The highlights of the evening came when Charles Quinn was asked what event he had enjoyed covering the best. He replied, "Covering Bobby Kennedy's presidential campaign." To him it was the most rewarding, the most exciting work of his entire life. "Bobby Kennedy started out like a typical politician—he was a demagogue. His reasons for not getting into the campaign initially were valid. He felt that McCarthy was worse than Johnson. At first he didn't realize how much the poor people needed him and depended on him. But I saw how the people transformed him. He realized that the people in touching him were touching power—were reaching out for hope. He got tougher and tougher. He fought against the upper class and privileged students. He gave college students hell for their hypocrisy on the war. The climax occurred at a medical school in Indiana. He gave a routine speech about social justice. Afterwards, the questioning was very hostile and sniping. Someone in the balcony got up and said, 'Senator Kennedy, all these programs are very nice, but who'll pay for them?' Kennedy's lips tightened, he pointed at the questioner and then at others in the audience and said, 'You are and you are and you are and you are and I am and all of us are. I am disturbed with the trend of questioning—I am getting tired of those kids who sit back comfortably going to college while tens of thousands of others who don't have the opportunity or the intelligence are over in Vietnam dying—You are here getting an education—preparing for a comfortable life and you ask me who is going to pay for all this.' There was a dead silence and then someone got up and said, 'Sir, not all of us agree with the line of questioning.'"

Review . . .

GAGE CONCERT

by Dave Hobill

Sunday afternoon the Worcester Art Museum began its concert season with the seventeenth annual Thomas Hovey Gage Memorial Concert. These yearly concerts are given in the memory of the late Mr. Gage, past president of the art museum who was largely responsible for inaugurating the museum's free public concerts. Works of Schubert, Bartok, and Dvorak were performed by the Czech String Quartet which consists of artists in residence at the University of Canterbury, Christchurch, New Zealand.

The embers of the ensemble, Stefan Czapary, violin; Rudolf Kalup violin; Jaroslav Karlovsky, viola; and Zdenek Kanicek, cello; lived, studied, and worked in Prague until August 1968. After leaving Czechoslovakia, the group founded the Czech String Quartet "inspired by the idea that the Czech tradition for incomparable chamber music playing will survive."

The concert opened with a performance of the Schubert quartet in E-flat major Op. 125 no. 1. At once the quartet showed the audience that they were truly masters of chamber performing. The ensemble maintained an authoritative control of this work from the opening passages to the closing coda. Gracefully the group was able to weave the delicate melodies that were very distinguishably those of Franz Schubert.

The short scherzo movement was marked by a profound synchronization on the part of all the performers. During the very moving adagio the fluidity with which the quartet could perform was highly exhibited. Yet the players did not quite remain in complete control over the passages which could have easily become overly flowery and filled with a trite expressiveness.

Both Messers, Czapary, and Konicek were very firm in their exposing of the theme of the fourth movement and the colorations by the viola and cello were very vivid. The violin though did seem to lose some of their brilliance in this movement.

Quartet no. 3 of Bela Bartok proved to be a very exciting one for both the performer and audience alike. Many of the sections of this piece were filled with pitfalls and they wound their way through atonality and tonality based on the Magyar folk

tunes that Bartok incorporated in this work. Yet these difficulties did not impede the performance. The group was able to pick its way through the twisting passages with a complete rhythmic control are extreme dexterity.

Mr. Karlovsky proved to be very agile as lowing techniques and pizzicato techniques were interchanged at a rapid pace. Even as the work became filled with the violent passages the players were able to maintain the forcefulness and power without taking away from the rhythmic innovations that Bartok had developed.

The last movement was undoubtedly the best of the work. The cello-violin duet was very well performed with a true feeling for Bartok's style and the strongly impassioned coda caught the attention of everyone in the audience with its electrifying sounds.

With the performance of Dvorak's "American" Quartet the concert reached its highest point. The quartet immediately caught the delightful opening to the first movement. It was during this work that the Czech style could be fully appreciated. Dvorak's Czech melodies were filled with a wonderful freshness that few chamber players can truly bring out.

Though the rhythms were mainly American, the Bohemian tradition was still remaining and the quartet brought out every bit of this tradition that had been ingrained so much in their own lives.

Much of this piece was simple musically yet profound in its message. Certainly the Czech Quartet captured the profundity of this work. The deeply moving lento was much like something from the "new World" Symphony and the violinists were able to sustain Dvorak's love and yearning for Czechoslovakia in the thematic material.

The last movement proved to be a favorite with the audience and the musicians were recalled for an encore. Performing the last movement of Mozart's G-major quartet the ensemble proved themselves capable of playing in any style, and showed that they had true feeling for the style in which they played.

TRUSTEES SAD ABOUT DEFICIT

The faculty met Thursday, Nov. 12 at 4 in Morgan Hall. Among the items discussed were the progress of the implementation of the W. P. I. Plan (see last week's News), Parents' Day, and Preregistration. President Hazzard made his fall report to the faculty. He started that the trustees were happy with the handling of last spring's campus disorder. They were also pleased with the outcome of the Clean Air Car Race and the W.P.I. Plan. They were understandably unhappy with the \$400,000 operating deficit, but President Hazzard explained that this is a growing problem for private institutions. He urged the faculty to funnel any suggestions for this and other problems through the Trustee's Committee on Academic Policy and Student Affairs.

He went on to discuss the findings of the Biological Study Team which recommended the establishment of a Biology Department here at Tech. Because of the financial concerns, the President foresaw use of the consortium in getting a department started. He stated that increased cooperation with the consortium might be the only means of survival for private institutions. The consortium is, at present, lobbying for increased support for private institutions, through more state scholarships, by the Massachusetts legislature.

On the Plan, Dr. Hazzard said that wherever he travels business, industry, alumni, foundations, and other schools all express their enthusiasm for the Plan. A group of sociologists, headed by Dr. Levenson of Washington University are going to study the effects of sharp changes in the educational atmosphere on members of the academic community. They will be asking, through Dean Reutlinger's office, for volunteers of students, faculty, and administrators to take a special test for their study.

Professor Moruzzi announced the faculty appointments to the TCC. Dr. Kiel of the Curriculum Committee presented recommendations that three new courses AC303, En214, and En 314 be adopted. These were approved as was a recommendation to allow HI400 and HU400 to be taken under the S-U grade system.

The College Health Service has obtained vaccine and will give flu shots on scheduled days as listed below.

Cost: \$1.00.

All those who wish to have flu vaccine shots should report to the Health Office in Stoddard C, Hackfeld Road entrance between the hours of 1:30 - 5:00 p.m. and 8:00 - 10:00 p.m.

November 17 & 18 — Seniors

November 19 & 20 — Faculty, Staff and other employees

SALISBURY POND
CLEAN UP COMMITTEE
WED. NITE 7:30

LIBRARY SEMINAR ROOM
IMPORTANT MEETING
WITH HEALTH DEPARTMENT

We need people who are willing to test samples and work with industries in studying plant processes.



Venture: Use a love call to count bacteria.

The *lampyridae* beetle family. Delight of small boys. Biological light bulb. And prime source of raw material for another Du Pont innovation.

Luciferase, an enzymatic protein with intriguing properties, obtainable only from fireflies. *Luciferin*, an organic molecule also found in fireflies, but synthesizable. *Adenosine triphosphate* (ATP), a common energy-yielding substance found in all living cells.

Those are the three main ingredients in *lampyridae's* love light. And because ATP is common to all living cells, university researchers discovered they could produce an

artificial glow by mixing luciferin and luciferase wherever life is present.

Noting that phenomenon, Du Pont scientists and engineers went on to develop it into a practical analytical system. Correlating the intensity of the artificial "glow" with the amount of ATP present in bacteria, they designed a means of measuring the reaction.

The result is the luminescence biometer—the first really basic improvement in bacteria-counting methods since the time of Louis Pasteur. Rather than waiting days for a culture to demonstrate growth density, a doctor or technician can

now get a digital readout of bacteria concentration in a matter of minutes.

Other potentially lifesaving uses for the biometer are being suggested every day—such as diagnosing metabolic rates, enzyme deficiencies and nerve damage.

Innovation—applying the known to discover the unknown, inventing new materials and putting them to work, using research and engineering to create the ideas and products of the future—this is the venture Du Pont people are engaged in.

You can become one of them, and advance professionally in your chosen field. See your Du Pont Recruiter. Or send us the coupon.

Slimey
Dimey
Night

GOAT'S HEAD PUB

Wed. Nite
4 - 6 P.M.

Placement Seminar Nov. 23

W.P.I. will hold a placement seminar on November 23, at 7:30 p.m. in Morgan Hall. The seminar will be for the benefit of the Grad students and the Seniors. Mike Hubbard, star of the CBS special "Recruiters", will be the guest speaker. After Mr. Hubbard gives his speech, there will be a break for coffee and donuts and then the seminar will resume with a panel discussion. The panel consisting of Tech Grads, Lenny Polizzotto, Ray Rogers, Leon Scruton, and David Hopkinson will be open to questions from the audience.

Du Pont Company
Room 7890, Wilmington, DE 19898

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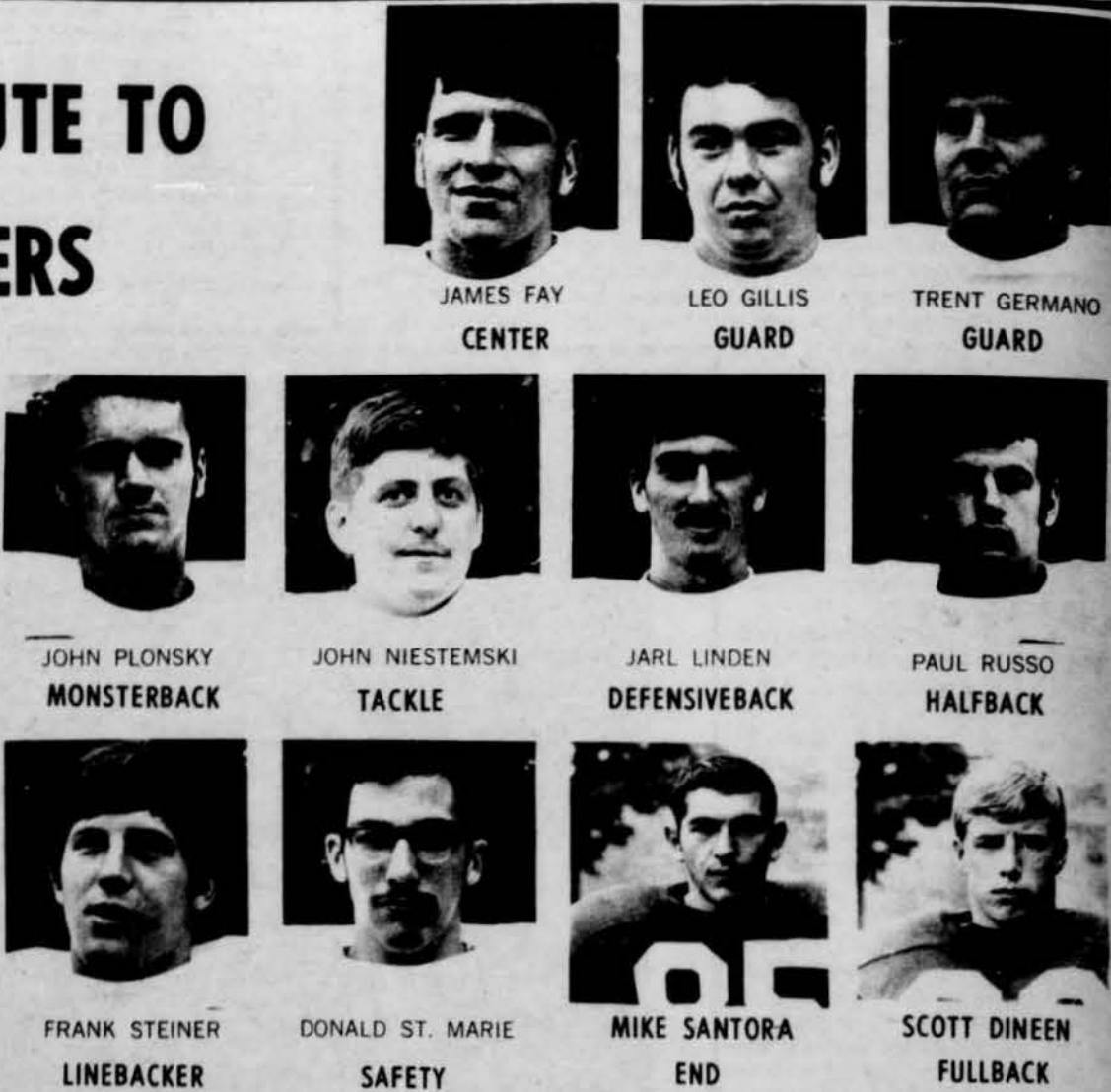
TECH PAYS TRIBUTE TO SENIOR GRIDDERS

The W.P.I. football squad was lead this year by Captain Mike Santora and ten other seniors. On offense Mike Santora was the leading pass receiver at the right end slot; while Scott Dineen was the team's workhorse at fullback. No offense can move without a solid offensive line and seniors Trent Gremano right guard, Jim Fay center, and back-up guard Leo Gillis were the backbone of the front wall.

The strong point throughout the season was W.P.I.'s defensive unit. Don St. Marie, safety, was a stand-out for the entire season; leading the team with four pass interceptions. John Plonsky, roving linebacker, and Frank Steiner, middle linebacker, were two of Tech's

leading tacklers; besides aiding the secondary with 3 interceptions - two by Plonsky and one by Steiner. Other seniors on defense were John Niestemski, tackle, and Jarl Linden, defensive halfback.

The overall season record of 2-6 does not seem to be a true indication of the time and energy that each individual, especially the seniors sacrificed for the team. Some players start their football career in high school or maybe junior high or before. Our seniors have ended many a season before, but Saturday, Nov. 7th ended their final season - for some a joyous occasion and for others a sad moment, but for all something to be remembered.



Soccer Team In NCAA Test

Jack and the Giant. David and Goliath. Now, Worcester Tech and Harvard. The occasion is the opening round of the NCAA University Division soccer tournament, Tuesday, at 1:30 at Harvard.

This is billed as a mismatch with mighty lion Harvard expected to devour Tech, which is supposed to react like a lamb.

Harvard boasts an All-American goaltender in Shep Messing. Still, Crimson is so loaded with talent, Messing is splitting duties with last year's starter Bill Meyers, who posted 10 shutouts in 1969 en route to a semi-final loss to national champion St. Louis, 2-1.

"We don't have any outstanding individuals" says Worcester coach Alan King. We just have good teamwork and we play hard.

"This team has been a surprise to me. I thought we'd be weaker than last year, but the unity of the club has made it better."

Probably one of the most optimistic W.P.I. booters is Jack Blaisdell of East Longmeadow. This 180-pound junior broke the single season record at Tech this year with 15 goals.

Blaisdell says, "We'll give them a good name. This contest gives us a chance to show people how good we really are. They've been scored against." Tech scored 40 goals this season. St. Victor contributed nine, all on penalty kicks, Gus Boucher, Leominster High graduate, has booted home five goals.

Tom Terkanian, a junior, is in goal. Dave Sund, Worcester North High grad, St. Victor and freshman Steve Williams are the deep defensive backs or fullbacks.

I.M. Volleyball Kap Captures Crown

The IM Volleyball League ended its season this year with Phi Kappa Theta Number One in both leagues. In the Salisbury Division SAE was on top with an 8-0 record while DST was a close second with 7-1. The Kap swept through the Boynton Division with an 8-0 record while LCA put on the pressure with a record of 7-1. Phi Sig was also in contention in the Boynton League with a 6-2 record.

In the playoffs, the two undefeated teams, SAE and the Kap, met head-on-the winner having to win 2 out of 3 series, each series being

3 games. The Kap won the first series, two games consecutively but the next series was won by SAE after a hard fought last game 15-12. The third series proved which team was the better; the Kap won the opener 17-15, got hose the second game 15-4, but won the last game 15-12.

This year's volleyball season had some interesting aspects - 2 divisions, teams from fraternities and dorms, and a fascinating finish in the playoffs. Congratulations to the Kap.

Intramural Volleyball League
1970

Boynton Division				Salisbury Division			
Team	Won	Lost	%	Team	Won	Lost	%
PKT	8	0	1.000	SAE	8	0	1.000
LCA	7	1	.875	DST	7	1	.875
PSK	6	2	.750	AEP	6	2	.750
P60	5	3	.625	SPE	5	3	.625
ATO	3	5	.375	TKE	4	4	.500
Stoddard	3	5	.375	SP	3	5	.375
Stoddard A	2	5	.286	Daniels	2	6	.250
Riley 3rd	1	7	.125	Riley 4th	1	7	.125
Sheild	0	7	.000	TC	0	8	.000

Playoffs			
Division	Won	Lost	%
Boynton Division: Phi Kappa Theta (PKT)	3	1	.677
Salisbury Division: Sigma Alpha Epsilon (SAE)	1	2	.333

September 30 thru November 3.

Becker Junior College
presents

THE STRAWBERRY STATEMENT

Friday, November 20 — 7 P.M.
Saturday, November 21 — 2 P.M. & 7 P.M.
Sunday, November 22 — 2 P.M. & 7 P.M.

at the auditorium, 61 Sever St.
Admission \$1.50

WINTER SPORTS LOOK PROMISING

Swimming

Coming off a very fine 6-2 season, the Worcester Tech swim team looks to be every bit as strong this year. Although the squad boasts only two seniors, co-captains Carl Cruft and Tom Weil, and 5 juniors, it still shapes up as one of the best in recent years.

The team appears to be strong in almost every event. In the butterfly, frosh John Palitsch and junior Pete Daupern appear to be the leading candidates. Fred Baker Scott Wilson, and Downer Johnson are battling for starting nods in the backstroke. Junior Bruce Eteson has the breaststroke wrapped up. Cruft and first-year man Bill Plonsky will swim the individual medley for the team. The squad's best results will probably be in the freestyle events. This year's freestylers are packed with talent. The list includes Weil, Al Nafis ('72), Steve Dignette ('72), Dale Ladysh ('73), Steve Johnson ('73), Steve Cole ('73), Alan Hahnel ('74), and others. Bill Gemmer, Randy Partridge and Al Warenda will handle the diving chores for the team.

Over the Homecoming Weekend, the team was set back a week in training when someone drained the pool. Still, Coach Petersen feels that in attitude, dedication, and depth, this team is in better shape than teams of the last few seasons.

The mermen open against cross-town rival Holy Cross on December 2nd. The schedule this year will be essentially the same as last year's with one exception. Lowell Tech has been dropped and Northeastern University added to the line-up. Coach Petersen indicated optimism for the forthcoming year. He also said that U-Mass, Coast Guard, and Tufts (ranked 16th nationally last year) would probably be the toughest opponents on this year's schedule. With the talent and team morale being what it is, a few long-standing records could fall this season. Good spectator support would enhance the team's possibilities immensely.

Hockey

This year's hockey club should be substantially stronger than last years tournament team. With the return of seven lettermen and the addition of six new prospects the club has added depth and is a better balanced machine, than last year. Heading the defensive unit are co-captains Bob Johnson and Doug Presley. Along with this fine talent Tech will field the formidable bulk of Jim Jardine. Returning to fulfill the offensive punch will be Jim Rissotti, Westy Pierson, Steve (J.C.) Tremblay, Jim Berham, and Bruce Kern. Goal-tending duties will be headed by George Gamache and Carl Gold-noff will fill in when needed. The season opens Nov. 28 at M.I.T., a non-league game. League encounters will be with Nichols, Worcester State, Assumption, and Fitchburg State, a new addition to the league. Incumbent Holy Cross has seceded to enter the ECAC I division. The first league encounter is scheduled for Monday, Dec. 7, against Worcester State at Worcester Arena. Let's be down there to give the team your support. Thank You.

Fencing

The W.P.I. Fencing Team opens their '70-71 season this coming Sunday, November 22, with a home meet with S.M.U. The team is in better shape than ever before, having lost only one experienced fencer, and retaining such dependable talent as Conrad Baronowski, Tom Razcowski, and Bob Loomis. No difficulty is anticipated in overcoming S.M.U., whom we defeated 18-9 last year, rounding out a very successful 4-and-2 season.

GIZZI IS HERE!

Poetry Reading 8 p.m. Tuesday
in the Coffeehouse
with Mike Gizzi